ASH GROVE CEMENT COMPANY

M/023/004

Western Region
P.O. Box 51
Nephi, Utah 84648
801-857-1212

April 17, 1995

United States Forest Service
Fillmore Ranger District
P.O. Box 265
Fillmore, Utah 84631

Gentlemen:

Herein are the responses to clarifications to the Ash Grove Cement Company Leamington Plant Notice of Intention To Revise Large Mining Operations (dated February 28, 1995), requested by the United States Forest Service. These responses are based on our understanding of the requested clarifications.

We have revised the originally submitted Chapter 6 to answer the questions and clarifications you requested. Please replace Page 6-1 of the current submission, dated February 28, 1995, with the attached, revised (April 10, 1995) Pages 6-1 and 6-2, and the modified (by manual marking or crossing out portions of the original permit) first page on the Reclamation Plan, identified by the number 6000499 in the bottom left corner of the page, which are all included in this correspondence.

Ash Grove Cement Company appreciates your timely consideration of these clarifications to our Notice of Intent to Revise Large Mining Operations for the Leamington Plant. Please contact me with any questions regarding these clarifications.

Sincerely,

G. Duane Crutchfield

G. Duane Crutchfield
Plant Manager

Enclosures

pc: State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Chapter 6(Revised April 10, 1995)

Reclamation Plan

6.1 General Overview

The original reclamation plan is in Appendix A. Modifications to the original permit are as marked on the applicable portions of the original permit pages at the end of this chapter. The primary changes in the original permit are addressed in the Request for Variances in Chapter 7.

6.2 Facilities Closure

Final closure would consist of dismantling and disposing of the plant facilities in a manner which will minimize hazards to the public safety. At this time there are no future plans to close the facilities.

Although it is not anticipated that there will be any drainage sediment in the existing ponds at the time of closure, any drainage sediment in the ponds will be cleaned out if needed at that time. It is anticipated that these sediment ponds will never fill up following closure.

6.3 Shale Placement Area Regrading

The shale and non-product materials placement areas will be placed at near to the final contours as an operational plan. Only minimal final shaping to assure any erosion control may be needed.

The non-product shale will be transported from the active mining area and placed primarily by conveyors in the shale placement areas. These materials will be placed in a planned progression by the conveyors, such that there will be no dams. Note that all of the conveyor equipment is planned to be moveable, extendable, and retractable and is planned to be moved as needed within the active mining and shale placement areas as operations progress.

In the shale placement areas, the progression of materials placement will blend into existing topography, and extend up the canyon to tie-in to existing topography at a pre-determined elevation. The overall slopes of the final shale placement areas will be 2 horizontal to 1 vertical. This is flatter than the natural angle of repose for this kind of material. Drainage will be maintained at the base and near the mouth of the canyon, with all disturbed waters being collected by the existing pond.

These materials will be initially placed by the conveyor system and then minimally shaped by dozers in a terrace like manner to mitigate erosion from rainfall. The terracing of the shale placement areas will include access to allow all of the final slopes to be hydro seeded.

6.4 Final Pit High Walls

The final slopes of the pits will vary between 63 and 66 degrees. Historic pit slopes have established that these slopes will be stable for the life of the operation and at this flatter than stable angle.

The planned final overall pit highwall angle of 2 vertical to 1 horizontal is much flatter than existing competent slopes. Current blasting practices will ensure that the overall slopes will remain stable. The existing slopes that are near vertical to past vertical are evidence that these planned final highwall slopes will be stable not only beyond the life of the operation, but reasonably for an infinite time.

(Revised April 10, 1995)

6.5 Drainage and Sediment Control

The drainage and sediment control are minimized by design and operational plan. The current permit approach will be used in addition to the proposed plans as needed.

As discussed in Chapter 6.3, all disturbed and undisturbed water drainage will be diverted to current ponds.

6.6 Topsoil Plan

Topsoil plans are minimal, due to virtually no salvageable materials. We plan to proceed in the same manner as planned in the current permit as noted in Appendix A.

6.7 Revegetation Plan

The basic approach to revegetation is similar to the original permit. As noted in Chapter 6.3, the revegetation is now planned to be accomplished by hydro seeding. Access roads that will accommodate the hydro seeding equipment will use part of the planned terraces. These roads will be integrated into the final reclaimed slopes.

The reclaiming of roads and conveyor routes will be minimal, as the conveyor routes will mostly be mined out. Where there are any roads or remnants of conveyor routes, they will be prepared (possibly ripped) and seeded. The success of the seeding will be based on the ground cover in the area and on the success equal to vegetation in the surrounding area.

RECLAMATION PLAN

The Reclamation Plan for the Martin Marietta Leamington quarry is straight-forward and simple. Reclamation will be accomplished by two methods: 1) Contouring and 2) Revegetation. Contouring will be done in the mining areas and revegetation will be done in the waste disposal areas. The mining areas have little or no vegetation to begin with. There are rock ledges and outcrops prevailing throughout. In the waste disposal areas, clay and silts are predominant. These materials can be stripped and stored for cover and revegetation.

Since the area has very little vegetation to begin with, the basic plan is to contour the quarry in benches and leave an exposed rock relief. The typical bench will be 60 feet high and 40 feet wide. (See the number 4 limestone Strike Profile and LDH 5 Profile in Section D.) The contouring will allow natural drainage to the natural drainageway. There will not be any final grading. However, all benches will be left so there will be no overhangs or dangerous separations.

In the plant non-product disposal area, the clay and silt will be stripped off with a self-loading scraper and stockpiled to begin with. The initial stripping will constitute three to five acres. When the stripped area is filled to grade with plant dust and suitable quarry rock, another three to five acres will be stripped. The material stripped in this parcel will be placed upon the completed placement area. The clay and silt will be deposited in a layer 12 to 18 inches in thickness with the scraper. A motor grader will provide final grading and sloping. When final grading is complete, the area will be seeded with a mixture recommended by the Fishlake National Forest Service. Seeding will be accomplished by drilling. Fertilizing will be done at the time of seeding as prescribed by the Utah State University County Extension office. hydro seeding.

The final contour will be tied into existing contours with a smooth natural looking transition. The maximum slope in the final grade of the shale placement area will be two to one. In the other placement areas, the old quarries, slopes may be steeper. The idea in these areas is just to fill these quarries and revegetate the slopes.

With the maximum slope of two to one, drainage will be no problem. Erosion should be non-existent except for periods of great rainfall such as a 100-year storm. Once a root system has been established, most of the moisture will be absorbed. This is the case as it exists today.